Message

From: Lindstrom, Andrew [Lindstrom.Andrew@epa.gov]
Sent: 9/10/2019 6:57:50 PM
To: Pilant, Drew [Pilant.Drew@epa.gov]; Tadesse, Haile [tadesse.haile@epa.gov]; Miller, Rebecca [Miller.Rebecca.L@epa.gov]; Lanier, Sarah [Lanier.Sarah@epa.gov]; Washington, John [Washington.John@epa.gov]; Pruzinsky, Amanda [Pruzinsky.Amanda@epa.gov]; Barrette, Michael [Barrette.Michael@epa.gov]
CC: Reinhart, Roger [Reinhart.Roger@epa.gov]; Rogers, Rick [rogers.rick@epa.gov]; Poeske, Regina [Poeske.Regina@epa.gov]; Buckley, Timothy [Buckley.Timothy@epa.gov]; Biales, Adam [Biales.Adam@epa.gov]; Libelo, Laurence [Libelo.Laurence@epa.gov]
Subject: PFOA and HFPO-DA data for all sites for the SDWA Order in Parkersburg
Attachments: Copy of WWO_ResidentDrinkingWaterHFPODAResults_080119.xlsx; Copy of WWO_ResidentDrinkingWaterResults_022719.xlsx; Copy of WWK_ResidentDrinkingWaterHFPODAResults_080119.xlsx; Copy of WWK_ResidentDrinkingWaterResults_022719.xlsx; C8GPO Report.docx

All,

Here are the PFOA and HFPO-DA data for all sites that have been monitored as part of the SDWA Order that DuPont (now Chemours) has been responsible for in their effort to identify and then mitigate drinking water contamination around the Parkersburg plant.

I think these are all the water data that are available now. It appears to include samples from Ohio and West Virginia collected between 2002 – 2018. This is an amazing dataset that should allow us to do many valuable things, such as: plotting the distribution of groundwater contamination around the site; evaluating the variability over time, depth, and soil type; assessing the effectiveness of granulated carbon sorbent scrubbers used in the in-home mitigation systems; helping to establish or verify airborne deposition models; and probably many other things we will come to us as we think about these data more.

I don't know how easy it will be to extract and manipulate these data in the current format. Please let me know if this is difficult to work with and maybe we can get it delivered in another form.

The columns listed in the spreadsheet are straight forward, but there are a few things that would be good to point out. First off, this is all personally identifiable information or PII, so we can't present or talk about these data (except in-house here at EPA) without doing something to render the analyses non-PII. I think anything we develop or present on this should be cleared with our R3 and R5 colleagues to make sure it meets their expectations for preserving anonymity before we take it public.

Most of these data seem to be from ongoing efforts to monitor the effectiveness of the activated charcoal scrubbers (Bed1 and Bed2) that have been used in series to remove PFOA (and HPFO-DA) from the source water. Notice that the beds have been changed out over time. (It would be nice to figure out how long they last.) The PT designation is for Prior to Treatment, or before the source water reaches the first carbon bed, so if you are interested in groundwater concentrations, please focus on the PT samples.

The sample purpose column seems to indicate most samples were FS (field sample, I think) or duplicates (DUP).

The results are reported in units of ug/L but I think any summary that we do should be reported in ng/L to be consistent with our Health Advisories and avoid unnecessary confusion.

The Lab Qualifiers seem to follow a typical reporting format where B = presumed contamination of blank, U = estimate, below quantitation limit, J, estimate, above quantitation limit, F1= Field duplicate results outside of control limit, H= holding time exceeded, etc. We should get R3 to confirm this.

I'm hoping the Easting and Northing location variables are usable and contain enough precision and consistency to provide for a robust analysis. Please let me know if there are any issues here.

I've also attached a data analysis summary written by Mayek Mavi from R3 (C8GPO Report.doc). I'm not familiar with any of the techniques used in this statistical evaluation but this effort provides a glimpse of what could be done to summarize these data.

There are other data available on PFOA in soils, surface water, foods, livestock, and other media that have been produced as part of the SDWA Order. I will be working with R3 and R5 folks to try to make this information available as well.

My hope is that we will be able to work together to write at least one peer-reviewed publication that summarizes these data and that several in-house and/or conference presentations will be delivered to stimulate further research in this location. Please bear in mind that work to meet the actions identified in the SDWA Order (identify and remediate drinking water sources with PFOA above 70 ng/L) is still ongoing. Please also consider the many states have proposed or enacted drinking water standards of < 20 ng/L, indicating that the land area with source water contaminated at some appropriate lower level (New Jersey's proposed MCL for PFOA is 14 ng/L) is likely to be a future target for the EPA or state health officials.

If you have questions about any of this, please let me know and I will do my best to work with the R3 folks to sort out anything that comes up.

Thank you very much,

Andy